

**CLAIMS**

What is claimed is:

- 1        1. A method of using a computer system to graphically display search results, comprising:
  - 3              sending a search request to a search engine, wherein the
  - 4              search request includes a navigation location processed into a
  - 5              format required by the search engine;
  - 6              receiving search results from the search engine, wherein
  - 7              the search results are proximal links related to the
  - 8              navigation location, wherein the proximal links are related to
  - 9              the search request;
  - 10             displaying the search results in a display area, wherein
  - 11             the search results are represented as graphical shapes drawn
  - 12             in the display area and at any given time represent data for a
  - 13             time quantum, and wherein the graphical shapes reference data
  - 14             and respond to user selections allowing a user to access
  - 15             referenced data.
- 1        2. The method of claim 1, wherein the proximal links
- 2        may be at least one navigation location.
- 1        3. The method of claim 1, wherein the proximal links
- 2        may be a subweb.

1       4. The method of claim 1, wherein the received proximal  
2 links are provided to an output target.

1       5. The method of claim 1, wherein the graphical shapes  
2 are grouped by the inter-relatedness of the data referenced by  
3 the graphical shapes.

1       6. The method of claim 5, wherein the inter-relatedness  
2 of the data is represented by graphical shapes, wherein  
3 subsequent data containing references within the scope of  
4 primary data are represented by subsequent graphical shapes  
5 that are enveloped by primary graphical shapes.

1       7. The method of claim 5, wherein the inter-relatedness  
2 of the data is represented by graphical shapes, wherein  
3 subsequent data containing no references within the scope of  
4 primary data are represented by subsequent graphical shapes  
5 that do not intersect and are not enveloped by primary  
6 graphical shapes.

1        8. A system of using a computer to graphically display  
2        search results, comprising:

3              means to send a search request to a search engine,  
4        wherein the search request includes a navigation location  
5        processed into a format required by the search engine;  
6              means to receive search results from the search engine,  
7        wherein the search results are proximal links related to the  
8        navigation location, wherein the proximal links are related to  
9        the search request;

10          means to display the search results in a display area,  
11        wherein the search results are represented as graphical shapes  
12        drawn in the display area and at any given time represent data  
13        for a time quantum, and wherein the graphical shapes reference  
14        data and respond to user selections allowing a user to access  
15        referenced data.

1        9. The system of claim 8, wherein the proximal links  
2        may be at least one navigation location.

1        10. The system of claim 8, wherein the proximal links  
2        may be a subweb.

1        11. The system of claim 8, wherein the received proximal  
2        links are provided to an output target.

1        12. The system of claim 8, wherein the graphical shapes  
2        are grouped by the inter-relatedness of the data referenced by  
3        the graphical shapes.

1        13. The system of claim 12, wherein the inter-  
2        relatedness of the data is represented by graphical shapes,  
3        wherein subsequent data containing references within the scope  
4        of primary data are represented by subsequent graphical shapes  
5        that are enveloped by primary graphical shapes.

1        14. The system of claim 8, wherein the inter-relatedness  
2        of the data is represented by graphical shapes, wherein  
3        subsequent data containing no references within the scope of  
4        primary data are represented by subsequent graphical shapes  
5        that do not intersect and are not enveloped by primary  
6        graphical shapes.

1        15. A method of using a computer system for searching  
2        for relevant data, comprising:

3            receiving a search request from a user, wherein the  
4        search request includes a search subject and navigation  
5        location;

6            processing the search request into a format required by a  
7        search engine;

8            sending the processed search request to the search  
9        engine, wherein the processed search request is processed for  
10      the search engine;

11          receiving search results, which are proximal links,  
12        wherein the proximal links are related to the navigation  
13        location from the search request;

14          determining which proximal links are relevant, wherein  
15        relevant links are those that are related to the search  
16        subject of the search request; and

17          transmitting the search results to the user.

1        16. The method of claim 15, further comprising  
2        determining if too many proximal links have been found.

1        17. The method of claim 15, further comprising  
2        processing relevant links for output if not too many proximal  
3        links have been found.

1        18. The method of claim 15, further comprising providing  
2        the relevant links to an output target.

1        19. The method of claim 18, wherein the output target is  
2        for is a temporal user interface.

1        20. The method of claim 15, wherein the proximal links  
2        may be at least one navigation location.

1        21. The method of claim 15, wherein the proximal links  
2        may be a subweb.

1        22. A system of using a computer to search for  
2 information, comprising:

3              means to obtain a query, wherein the query includes a  
4 search subject and navigation location;

5              means to process the navigation location into a format  
6 required by a search engine;

7              means to provide the search engine with a location  
8 request, wherein the location request is the processed  
9 navigation location;

10          means to obtain navigation location related proximal  
11 links, wherein the location proximal links are related to the  
12 location request;

13          means to process the location proximal links for  
14 relevance; and

15          means to identify subject links related to the search  
16 subject from the processed location proximal links.

1        23. The system of claim 22, further comprising means to  
2 determine if an expanse breach has occurred.

1        24. The system of claim 22, further comprising means to  
2 process the identified subject links for output if no expanse  
3 breach occurred.

1        25. The system of claim 22, further comprising means to  
2        provide the processed proximal links to an output target.

1        26. The system of claim 25, wherein the output target is  
2        for is a temporal user interface.

1        27. The system of claim 22, wherein the proximal links  
2        may be at least one navigation location.

1        28. The system of claim 22, wherein the proximal links  
2        may be a subweb.

1        29. A method of using a computer to display help  
2        information, comprising:

3            monitoring function execution;  
4            storing a current system state;  
5            determining what functions have been executed by  
6        examining latest stored system states if a request for help  
7        has been made;  
8            displaying help information based on the functions that  
9        have been last executed.

1        30. The method of claim 29, further comprising  
2        determining if the last executed function has been made by  
3        mistake.

1       31. The method of claim 30, wherein the determination  
2       that the last executed function has been made by mistake is  
3       made by a user engaging an undo function.

1       32. The method of claim 29, further comprising  
2       instantiating a latest stored system state the last executed  
3       function has been made by mistake.

1       33. An interaction computer interface invocable by an  
2       application program responsive to user selections to invoke  
3       application module commands, comprising:

4           an information pool;  
5           information clouds, wherein the information clouds are  
6       data structures referencing information;  
7           information crystals, wherein the information crystals  
8       reference information in information clouds and form at a  
9       passing of a temporal quantum;  
10          information raindrops, wherein the information raindrops  
11       are information crystals that form in an information pool.

1       34. The interface of claim 33, wherein a liquid graphic  
2       transformation effect is applied to the information pool.

1       35. The interface of claim 33, wherein the information  
2       pool is displayed in a window.

1       36. The interface of claim 33, wherein a highlighted  
2 portion of the information pool is displayed as a subview.

1       37. The interface of claim 33, wherein the information  
2 pool includes a pool bottom.

1       38. The interface of claim 37, wherein the pool bottom  
2 displays multimedia.

1       39. The interface of claim 37, wherein the pool bottom  
2 displays advertising.

1       40. The interface of claim 33, wherein the information  
2 pool displays temporal information.

1       41. The interface of claim 33, wherein the information  
2 clouds reference information from a data analyzer.

1       42. The interface of claim 33, wherein the information  
2 crystals reference navigation locations.

1       43. The interface of claim 33, wherein the information  
2 crystals reference subjects.

1       44. The interface of claim 33, wherein the information  
2 crystals reference multimedia.

1       45. The interface of claim 33, wherein the information  
2 crystals reference a number representing how many alternate  
3 navigation locations refer to a particular navigation  
4 location.

1       46. The interface of claim 33, wherein the information  
2 raindrops visually appear as analogue to real world raindrops  
3 falling into a pool.

1       47. The interface of claim 33, wherein groups of  
2 raindrops represent groups of data in a subweb.

1       48. The interface of claim 33, wherein the appearance of  
2 a raindrop may vary based on specified criteria.

1       49. The interface of claim 33, wherein the appearance of  
2 a raindrop may vary in color.

1       50. The interface of claim 33, wherein the appearance of  
2 a raindrop may vary in size.

1       51. The interface of claim 33, wherein the appearance of  
2 a raindrop may vary in thickness.

1       52. The interface of claim 33, wherein the appearance of  
2 a raindrop may vary in transparency.

1       53. The interface of claim 33, wherein the appearance of  
2       a raindrop may be complimented with complementary dynamic  
3       visual cues.

1       54. The interface of claim 48, wherein a specified  
2       criterion is the type of a document.

1       55. The interface of claim 48, wherein a specified  
2       criterion is a size of a document.

1       56. The interface of claim 48, wherein a specified  
2       criterion is a number representing how many alternate  
3       navigation locations refer to a particular navigation  
4       location.

1       57. The interface of claim 48, wherein a specified  
2       criterion is a number of multimedia files at a navigation  
3       location.

1       58. The interface of claim 48, wherein a specified  
2       criterion is staleness of a link.

1       59. The interface of claim 48, wherein a specified  
2       criterion is a media content type.

1       60. The interface of claim 48, wherein a specified  
2       criterion is a subject relevancy ranking.  
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1       61. The interface of claim 48, further comprising a  
2 dynamic mapping and search selection facility.

1       62. The interface of claim 61, wherein the search  
2 selection facility allows modification of the specified  
3 criteria.

1       63. The interface of claim 33, further comprising a time  
2 line facility.

1       64. The interface of claim 33, further comprising an  
2 interpretive help tool.

1       65. The interface of claim 33, further comprising a  
2 focus box.

1       66. The interface of claim 33, further comprising a  
2 skimming pebble facility.

1       67. A method of using a computer to display data,

2 comprising:

3       displaying an information pool;

4       receiving information from a data source;

5       generating information clouds, wherein the information

6 clouds are data structures referencing information obtained

7 from the data source;

8       generating information crystals, wherein the information

9 crystals reference information in information clouds and form

10 at a passing of a temporal quantum; and

11       displaying information raindrops, wherein the information

12 raindrops are information crystals that form in an information

13 pool.

1       68. The method of claim 67, wherein the data source is a

2 data analyzer.

1       69. The method of claim 67, further comprising applying

2 a liquid graphic transformation effect to the information

3 pool.

1       70. The method of claim 67, wherein the information pool

2 is displayed in a window.

1       71. The method of claim 67, wherein a highlighted  
2 portion of the information pool is displayed as a subview.

1       72. The method of claim 67, wherein the information pool  
2 includes a pool bottom.

1       73. The method of claim 72, further comprising  
2 displaying multimedia in the pool bottom.

1       74. The method of claim 72, further comprising  
2 displaying advertising in the pool bottom.

1       75. The method of claim 67, further comprising  
2 displaying temporal information in the information pool.

1       76. The method of claim 67, wherein the information  
2 clouds obtain information from a data analyzer.

1       77. The method of claim 67, wherein the information  
2 crystals reference navigation locations.

1       78. The method of claim 67, wherein the information  
2 crystals reference subjects.

1       79. The method of claim 67, wherein the information  
2 crystals reference multimedia.

1       80. The method of claim 67, wherein the information  
2       crystals reference a number representing how many alternate  
3       navigation locations refer to a particular navigation  
4       location.

1       81. The method of claim 67, wherein the information  
2       raindrops visually appear as analogue to real world raindrops  
3       falling into a pool.

1       82. The method of claim 67, wherein groups of raindrops  
2       represent groups of data in a subweb.

1       83. The method of claim 67, wherein the appearance of a  
2       raindrop may vary based on specified criteria.

1       84. The method of claim 67, wherein the appearance of a  
2       raindrop may vary in color.

1       85. The method of claim 67, wherein the appearance of a  
2       raindrop may vary in size.

1       86. The method of claim 67, wherein the appearance of a  
2       raindrop may vary in thickness.

1       87. The method of claim 67, wherein the appearance of a  
2       raindrop may be complimented with complementary dynamic visual  
3       cues.

1       88. The method of claim 67, wherein the appearance of a  
2 raindrop may vary in translucency.

1       89. The method of claim 83, wherein a specified  
2 criterion is the type of a document.

1       90. The method of claim 83, wherein a specified  
2 criterion is a size of a document.

1       91. The method of claim 83, wherein a specified  
2 criterion is a number representing how many alternate  
3 navigation locations refer to a particular navigation  
4 location.

1       92. The method of claim 83, wherein a specified  
2 criterion is a number of multimedia files at a navigation  
3 location.

1       93. The method of claim 83, wherein a specified  
2 criterion is staleness of a link.

1       94. The method of claim 83, wherein a specified  
2 criterion is a media content type.

1       95. The method of claim 83, wherein a specified  
2 criterion is a subject relevancy ranking.

1       96. The method of claim 83, further comprising a dynamic  
2 mapping and search selection facility.

1        97. The method of claim 96, wherein the search selection  
2        facility allows modification of the specified criteria.

1        98. In memory, an interaction interface invocable by an  
2        application program responsive to user selections to invoke  
3        application module commands, comprising:

4              a graphical shape to represent temporal information;  
5              a display area to display the graphical shapes,  
6              wherein the graphical shapes drawn in the display  
7        area at any given time represent data for a time quantum,  
8              wherein the graphical shapes reference data and  
9        respond to user selections allowing a user to access  
10       referenced data;

11             a temporal selection facility to specify any given time  
12        quantum in a chronological data set responsive to user  
13       selections,

14             wherein the temporal selection facility is disposed  
15        in communication with the display area such that user  
16       selections specifying a time quantum instruct the display area  
17       to display temporal information for a specified time quantum  
18       from a chronological data set.

1        99. The interface of claim 98, wherein a liquid graphic  
2 transformation effect is applied to the display area.

1        100. The interface of claim 98, wherein the display area  
2 is displayed in a window.

1        101. The interface of claim 98, wherein a highlighted  
2 portion of the display area is displayed as a subview.

1        102. The interface of claim 98, wherein the display area  
2 includes a lower display layer.

1        103. The interface of claim 102, wherein the lower  
2 display layer displays multimedia.

1        104. The interface of claim 102, wherein the lower  
2 display layer displays advertising.

1        105. The interface of claim 98, wherein the display area  
2 displays temporal information.

1        106. The interface of claim 98, wherein the chronological  
2 data set is obtained from a data analyzer.

1        107. The interface of claim 98, wherein the data the  
2 shapes reference navigation locations.

1        108. The interface of claim 98, wherein the data the  
2 shapes reference multimedia.

1        109. The interface of claim 98, wherein the shapes  
2        reference data from a chronological data set.

1        110. The interface of claim 98, wherein the shapes  
2        visually appear as analogue to real world raindrops falling  
3        into a pool.

1        111. The interface of claim 98, wherein groups of shapes  
2        represent groups of data in a subweb.

1        112. The interface of claim 98, wherein the appearance of  
2        a shape may vary based on specified criteria.

1        113. The interface of claim 98, wherein the appearance of  
2        a shape may vary in color.

1        114. The interface of claim 98, wherein the appearance of  
2        a shape may vary in size.

1        115. The interface of claim 98, wherein the appearance of  
2        a shape may vary in thickness.

1        116. The interface of claim 98, wherein the appearance of  
2        a shape may vary in transparency.

1        117. The interface of claim 98, wherein the appearance of  
2        a shape may be complimented with complementary dynamic visual  
3        cues.

1        118. The interface of claim 112, wherein a specified  
2        criterion is the type of a document.

1        119. The interface of claim 112, wherein a specified  
2        criterion is a size of a document.

1        120. The interface of claim 112, wherein a specified  
2        criterion is a number representing how many alternate  
3        navigation locations refer to a particular navigation  
4        location.

1        121. The interface of claim 112, wherein a specified  
2        criterion is a number of multimedia files at a navigation  
3        location.

1        122. The interface of claim 112, wherein a specified  
2        criterion is staleness of a link.

1        123. The interface of claim 112, wherein a specified  
2        criterion is a media content type.

1        124. The interface of claim 112, wherein a specified  
2        criterion is a subject relevancy ranking.

1        125. The interface of claim 98, further comprising a  
2        dynamic mapping and search selection facility.

1        126. The interface of claim 125, wherein the search  
2        selection facility allows modification of the specified  
3        criteria.

1        127. The interface of claim 98, further comprising an  
2        interpretive help tool.

1        128. The interface of claim 98, further comprising a  
2        focus box.

1        129. The interface of claim 98, further comprising a  
2        skimming pebble facility.

1        130. The interface of claim 98, wherein the graphical  
2        shapes are grouped by the inter-relatedness of the data  
3        referenced by the graphical shapes.

1        131. The interface of claim 130, wherein the inter-  
2        relatedness of the data is represented by graphical shapes,  
3        wherein subsequent data containing references within the scope  
4        of primary data are represented by subsequent graphical shapes  
5        that are enveloped by primary graphical shapes.

1        132. The interface of claim 130, wherein the inter-  
2        relatedness of the data is represented by graphical shapes,  
3        wherein subsequent data containing no references within the  
4        scope of primary data are represented by subsequent graphical  
5        shapes that do not intersect and are not enveloped by primary  
6        graphical shapes.

1        133. The interface of claim 130, wherein the inter-  
2        relatedness of the data is represented by graphical shapes,  
3        wherein subsequent data containing some references within the  
4        scope of primary data and some references outside the scope of  
5        primary data are represented by subsequent graphical shapes  
6        that intersect with primary graphical shapes.